Email Kysong Sei Lee for concerning condensation on HPL, 9 Aug 2012

Date: Thu, 30 Aug 2012 10:56:21 +0200

From: Vitulo Paolo <paolo.vitulo@unipv.it>

To: Ian Crotty <crotty@mail.cern.ch>

Subject: Fwd: Re: Re: Skype conference on New HPL surfaces

Parts/Attachments:

1 OK ~656 lines Text (charset: windows-1252)

2 Shown ~591 lines Text

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---------- Forwarded message ----------

From: kslee0421 <kslee0421@korea.ac.kr>

Date: 2012/8/9

Subject: Re:Re: Re: Skype conference on New HPL surfaces

To: Vitulo Paolo <paolo.vitulo@unipv.it>

Cc: Salvatore Buontempo <Salvatore.Buontempo@cern.ch>, "paul0985@gmail.com"

<paul0985@gmail.com>, Giuseppe Iaselli <giuseppe.iaselli@ba.infn.it>,

Salvatore Buontempo [salvatore.buontempo@gmail.com](mailto:salvatore.buontempo@gmail.com)

Dear Paulo,

Of course, the second item is very important, because the reaction of all

the samples to acetone acid is very similar. We need an expert to help us.

Distinguishing oil from melamine resin on the melamine surface seems to be not easy with existing

Chemical tools, because much larger amount of the melamine resin is also resolved

into the sample extracted by acetone acid.

For the condensation test, Minho dropped the oil drops on plexiglass plateas well just

to compare the dispersion of the oil drops on the HPL samples to a PMMA surface.

I donât think it would be so meaningful. I did not have a chance to show the all detail

procedures. The figures are the results after being completely dried. After

cleaning the surfaces with IPA, he disposed oil drops to the sample surfaces and quickly

took pictures.

First, he observed the responses of the oil drops to the sample surfaces.

Then, he got a conclusion that the oil/heptane drops well dispersed on the scratched HPL

Surfaces compared to other two cases. I agree you proposal of test is much more

relevant to get qualitative and solid conclusion. I think we need a few sample gaps of each

case.

But we already started mass production. All of us and facilities are fully

engaged in the mass production.

Minho also proposed us a polishing procedure by using a soft cotton paper to HPL surfaces

just before gluing so as get the similar polishing effect as done by the GT

tool. But I worry that it takes too much labor to finish one HPL until getting the significant

effect.

KODEL produced gaps for 110 RPC detector modules for PHENIXÂ experiments 3 years ago.

We opened some of them to compare the oil surfaces.Â The oil surfaces of these PHENIX gaps

were all perfect. PHENIX used all the CMS technologies to build their detectors (except for

trigger electronics). I just wonder that we install bubbled RPCs for our CMS

while providing much better detectors for PHENIX.

With Best Regards,

Kyongsei